

ABSTRACT

A sorting machine for diverting an article from an article stream generally includes a manifold, a first valve supported on the manifold and a second valve supported on top of the first valve. The manifold has a first blow-off conduit and a second blow-off conduit formed therein. The first blow-off conduit terminates at a first blow-off port and the second blow-off conduit terminates at a second blow-off port. The first valve is in fluid communication with the first blow-off conduit of the manifold for supplying a burst of fluid out of the manifold through the first blow-off port to divert an article from an article stream intersecting with the first blow-off port. The first valve further has a by-pass duct in fluid communication with the second blow-off conduit of the manifold. The second valve is in fluid communication with the by-pass duct of the first valve for supplying a burst of fluid out of the manifold through the second blow-off port to divert an article from an article stream intersecting with said second blow-off port. In this manner, the space between the first and second blow-off ports of the manifold can be made less than the width of the first valve.